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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: SITRICK, David H. )  
)  
For: IMAGE TRACKING AND )  
SUBSTITUTION SYSTEM AND )  
METHODOLOGY )  
)  
Serial Number: 09/723,169 )  
)  
Filed: November 27, 2000 )  
)  
Examiner: BECKER, Shawn M. )  
)  
Art Unit: 2173 )  
)  
Attorney Docket: STD 1684 RCE )

DECLARATION OF DAVID H. SITIRCK UNDER 37 CFR 1.131

Dear Sir:

I, David H. Sitrick, hereby declare and say that:

- 1) I am an attorney at law and a member of the firm of Sitrick & Sitrick whose offices are located at 8340 N. Lincoln Avenue in Skokie, Illinois. I am registered to practice before the United States Patent & Trademark Office, having been awarded Reg. No. 29,349. I have power of attorney to prosecute the above application. I am also the sole inventor on the above-referenced patent application. This application was filed on November 27, 2000.
- 2) In an Office Action for the above application, dated January 15, 2004, the Examiner cited Rom U.S. Patent No. 6,307,568 as a basis of rejection under 35 U.S.C. §103(a). The Rom patent has a priority filing date of October 28, 1998 and an issue date of October 23, 2001, and is thus not prior art, and the present Applicant can and hereby does swear back of the Rom patent as a reference, by means of this Declaration filed pursuant to Rule 131 (37 CFR 1.131) and the MPEP.
- 3) The following facts establish conception of the invention prior to the effective date of the Rom reference coupled with due diligence from prior to October 28,

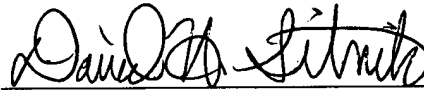
1998 to the filing of Applicant's above-referenced application on November 27, 2000.

- 4) As the patent attorney who prepared this Application (Serial No. 09/723,169) from the beginning. From the time I began working on this Application, I had a reasonable backlog of cases which I prosecuted in chronological order. I worked diligently and continuously to reduce this invention to practice and to complete this Application from conception and completion of the first draft of the Invention Disclosure on January 7, 1998 continuously through the filing of this Application on November 27, 2000. From conception to filing, I generated twenty-seven [27] typed drafts of invention disclosure; including claims, detailed descriptions and specifications.
- 5) Attached hereto as Exhibit A is a printed copy of the contents of Applicant's computer file directory listing the names of the electronic files (including references to the twenty-seven [27] typed drafts of invention disclosure; including claims, detailed descriptions and specifications) and their respective dates of modification which are attached hereto as Exhibits B-. (2 pages)
- 6) Attached hereto as Exhibit B is a printed copy of the disclosure of a draft specification of Applicant's application Serial No. 09/723,169; the corresponding electronic file name is [Invention Discl, 1-7-98], and was last modified on Wed, Feb 4, 1998, 11:17 AM—as listed and highlighted in red and identified as Exhibit B on page 2 of Exhibit A. (5 pages)
- 7) Attached hereto as Exhibit C is a printed copy of the disclosure of a draft specification and claims of Applicant's application Serial No. 09/723,169; the corresponding electronic file name is [DHS Disclosure ideas (6/30/98)], and was last modified on Mon, Jul 6, 1998, 1:17 PM—as listed and highlighted in red and identified as Exhibit C on page 2 of Exhibit A. (4 pages)
- 8) Attached hereto as Exhibit D is a printed copy of the disclosure of draft claims of Applicant's application Serial No. 09/723,169; the corresponding electronic file name is [1684 claims.v5 7/13/98], and was last modified on Mon, Jul 13, 1998, 10:49 AM—as listed and highlighted in red and identified as Exhibit D on page 1 of Exhibit A. (15 pages)

- 9) Attached hereto as Exhibit E is a printed copy of the disclosure of a draft specification and claims of Applicant's application Serial No. 09/723,169; the corresponding electronic file name is [DHS Disclosure ideas.3 10/16/98], and was last modified on Fri, Oct 16, 1998, 2:32 PM—as listed and highlighted in red and identified as Exhibit E on page 2 of Exhibit A. (6 pages)
- 10) Attached hereto as Exhibit F is a printed copy of the disclosure of the draft specification of Applicant's application Serial No. 09/723,169; the corresponding electronic file name is [1684 Draft Appl.v1 (12/23/98)], and was last modified on Thu, Dec 24, 1998, 1:18 AM—as listed and highlighted in red and identified as Exhibit F on page 1 of Exhibit A. (6 pages)
- 11) Attached hereto as Exhibit G is a printed copy of the disclosure of draft claims of Applicant's application Serial No. 09/723,169; the corresponding electronic file name is [1684DraftClaimv.0 (12/30/1998)], and was last modified on Wed, Dec 30, 1998, 1:51 PM—as listed and highlighted in red and identified as Exhibit G on page 2 of Exhibit A. (4 pages)
- 12) Attached hereto as Exhibit H is a printed copy of the disclosure of draft claims of Applicant's application Serial No. 09/723,169; the corresponding electronic file name is [1684 C-Claims.v1 (1/6/00)], and was last modified on Thu, Jan 6, 2000, 11:25 PM—as listed and highlighted in red and identified as Exhibit H on page 1 of Exhibit A. (3 pages)
- 13) By this Declaration, the rejection of above-referenced patent application, as based upon Rom U.S. Patent No. 6,307,568, is hereby overcome in accordance with 37 CFR 1.131, by swearing back of the reference.

- 14) I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and, further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,



David H. Sitrick  
Attorney for Applicant  
Registration No. 29,349

May 7, 2004

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**Exhibit A to**  
**DECLARATIONS OF DAVID H. SITIRCK**  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**












Applicant:	SITRICK, David H.	)
		)
For:	IMAGE TRACKING AND	)
	SUBSTITUTION SYSTEM AND	)
	METHODOLOGY	)
		)
Serial Number:	09/723,169	)
		)
Filed:	November 27, 2000	)
		)
Examiner:	BECKER, Shawn M.	)
		)
Art Unit:	2173	)
		)
Attorney Docket:	STD 1684 RCE	)

**EXHIBIT A (2 pages)**  
**to the**  
**DECLARATIONS UNDER 37 CFR 1.131**

37 items, 15.39 GB available

Name	Date Modified	Size	Kind	
1684 Appl Transmittal Letter	Wed, Nov 22, 2000, 1:56 AM	16 K	Corel WordPerfect 3.x document	
1684 C-Claims.v1 (1/6/00)	<u>Thu, Jan 6, 2000, 11:25 PM</u>	16 K	<u>Corel WordPerfect 3.x document</u>	<b>Exhibit H</b>
1684 Declaration & Power	Wed, Nov 22, 2000, 1:48 AM	36 K	Corel WordPerfect 3.x document	
1684 Draft Appl.v1 (12/23/98)	<u>Thu, Dec 24, 1998, 1:18 AM</u>	44 K	<u>Corel WordPerfect 3.x document</u>	<b>Exhibit F</b>
1684 Draft Appl.v2 (12/24/98)	Mon, Dec 28, 1998, 10:00 PM	64 K	Corel WordPerfect 3.x document	
1684 Draft Appl.v3 (12/29/98)	Tue, Dec 29, 1998, 9:32 PM	68 K	Corel WordPerfect 3.x document	
1684 Draft Appl.v4 (11/21/00)	Wed, Nov 22, 2000, 1:53 AM	156 K	Corel WordPerfect 3.x document	
1684 Draft Appl.v5 (11/27/00)	Mon, Nov 27, 2000, 11:54 PM	168 K	Corel WordPerfect 3.x document	
1684 Postcard	Tue, Nov 28, 2000, 1:09 AM	8 K	Corel WordPerfect 3.x document	
1684 Small Entity Stmt	Wed, Nov 22, 2000, 1:38 AM	12 K	Corel WordPerfect 3.x document	
1684Claims.doc	Tue, Jun 10, 2003, 2:54 PM	52 K	Microsoft Word 2001 document	
STD 1684	Sat, Jun 30, 2001, 3:50 AM	—	— folder	
1684 IDS (2/27/01)	Tue, Feb 27, 2001, 11:29 PM	16 K	Corel WordPerfect 3.x document	
1684 Postcard (2/27/01)	Tue, Feb 27, 2001, 10:34 PM	8 K	Corel WordPerfect 3.x document	
1684-1449 Form-(2/27/01) pg 2/2	Tue, Feb 27, 2001, 10:59 PM	40 K	Corel WordPerfect 3.x document	
1684-1449 Form-(2/27/01) pg 3/3	Tue, Feb 27, 2001, 10:33 PM	40 K	Corel WordPerfect 3.x document	
1684-1449 Form-(2/27/01) pg1/2	Tue, Feb 27, 2001, 10:32 PM	44 K	Corel WordPerfect 3.x document	
STD 1684 Distributed UserImagef	Thu, Jan 6, 2000, 1:35 PM	—	— folder	
1684 claims.v1 6/25/98	Thu, Jun 25, 1998, 1:48 PM	12 K	Corel WordPerfect 3.x document	
1684 claims.v2 6/26/98	Fri, Jun 26, 1998, 4:04 PM	12 K	Corel WordPerfect 3.x document	
1684 claims.v3 6/29/98	Mon, Jun 29, 1998, 1:18 PM	16 K	Corel WordPerfect 3.x document	
1684 claims.v4 7/8/98	Thu, Jul 9, 1998, 11:13 AM	28 K	Corel WordPerfect 3.x document	
1684 claims.v5 7/13/98	<u>Mon, Jul 13, 1998, 10:49 AM</u>	28 K	<u>Corel WordPerfect 3.x document</u>	<b>Exhibit D</b>
1684 Draft Appl.v1 (7/7/98)	Tue, Jul 7, 1998, 10:18 AM	20 K	Corel WordPerfect 3.x document	
1684 Invention Discl.v2 6/25/98	Thu, Jun 25, 1998, 11:02 AM	24 K	Corel WordPerfect 3.x document	

37 items, 15.39 GB available

Name	Date Modified	Size	Kind	
 1684DraftClaim.v0 (12/30/1998)	(Wed, Dec 30, 1998, 1:51 PM)	12 K	(Corel WordPerfect 3.x document)	<b>Exhibit G</b>
 (DHS Disclosure ideas (6/30/98)	(Mon, Jul 6, 1998, 1:17 PM)	12 K	(Corel WordPerfect 3.x document)	<b>Exhibit C</b>
 DHS Disclosure ideas.2 6/30/98	Mon, Jul 6, 1998, 3:13 PM	12 K	Corel WordPerfect 3.x document	
 (DHS Disclosure ideas.3 10/16/98	(Fri, Oct 16, 1998, 2:32 PM)	16 K	(Corel WordPerfect 3.x document)	<b>Exhibit E</b>
 DHS storyboards	Mon, Jul 6, 1998, 4:26 PM	16 K	Corel WordPerfect 3.x document	
 (Invention Discl, 1-7-98)	(Wed, Feb 4, 1998, 11:17 AM)	16 K	(Corel WordPerfect 3.x document)	<b>Exhibit B</b>
Stuff from LAG	Wed, Mar 28, 2001, 8:29 AM	—	folder	
 TrackingClaims (v2)	Mon, Nov 13, 2000, 6:20 PM	64 K	Microsoft Word 2001 document	
 TrackingClaims (v3)	Mon, Nov 13, 2000, 8:58 PM	64 K	Microsoft Word 2001 document	
 TrackingClaimsLAG v1.0	Thu, Nov 9, 2000, 8:50 AM	40 K	Microsoft Word 2001 document	
 TrackingClaims_v3.doc	Mon, Nov 13, 2000, 9:05 PM	40 K	Microsoft Word 2001 document	
 TrackingDesc_p3.doc	Wed, Nov 22, 2000, 11:50 PM	44 K	Microsoft Word 2001 document	





**Exhibit B to**  
**DECLARATIONS OF DAVID H. SITIRCK**  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	SITRICK, David H.	)
		)
For:	IMAGE TRACKING AND	)
	SUBSTITUTION SYSTEM AND	)
	METHODOLOGY	)
		)
Serial Number:	09/723,169	)
		)
Filed:	November 27, 2000	)
		)
Examiner:	BECKER, Shawn M.	)
		)
Art Unit:	2173	)
		)
Attorney Docket:	STD 1684 RCE	)

**EXHIBIT B (5 pages)**  
**to the**  
**DECLARATIONS UNDER 37 CFR 1.131**

DHS New Invention Disclosure  
1/7/98

This invention relates to audiovisual, audio, and video entertainment, and more particularly to a methodology and system for providing integration of user image information into a predefined audiovisual, audio, or video presentation. U.S. Patent 864, by the present inventor, teaches of the integration of user image data into a predefined audiovisual presentation. In furtherance of the teachings of the '864 patent, the present invention is directed to specific methodologies and systems for providing means for selection of and/or tracking and/or tagging portions of the predefined audiovisual presentation with which user image data can be associatively integrated.

There are various areas of technology which can be utilized in conjunction with the present invention to provide for the methodology and systems of the present invention. Pattern recognition, signal processing, motion detection and positional location technology for other applications is well-known, and many operational system alternatives exist. For example, see (then list references such as the IEEE Spectrum, I believe it was the December issue dealing with musical instrument interfaces and position detection, the article out of PC Graphics which was cited in either 1563 or 1404 or in the music application 1564 mine, dealing with all sorts of motion detection and body-centered technology, and the German patent publication or application publication with the hairdo mapping, and the patent cited in the European PCT search dealing with clothing mapping with sensors on the body) pattern recognition, signal processing and other.

Additionally, post-production house technology provides tools for video, audio and audiovisual manipulation and adaptation, such as roto-ing, autoroto-ing, (puffin, and blank software a video versus photo version of Photoshop), etc. [Need to get details from Brett and Joel and

## CONFIDENTIAL

JHS's contacts.] For example, coloration of old black-and-white films provides for manual outlining of sections of each frame of the black-and-white film, which are then colorized section by section. More advanced tools provide for intelligent extrapolation from frame to frame of unchanging portions. In addition, recent video game technology has provided for utilizing motion capture technology with live actors to generate a motion track, to which skeleton computer generated images can be associated, so that, for example, in a fighting game, a particular warrior can be associated with the actor's motion track, while a different computer graphics generated warrior is associated with a second actor's motion track. This is done in a rendering manner, where the skeleton frame of the computer generated graphics, and the computer generated graphics images are mapped into the motion captured track signals to create the motion for the computer generated images. In addition, during the rendering, a background environment is rendered, taking into consideration the position of the computer generated images actor's relative position to the environment (i. e. in front of or behind the environment from the display perspective of the user).

In accordance with one aspect of the present invention, an additional level of associative image integration is provided, where the motion track data, or other tag information data for a predefined character within the predefined audiovisual presentation, is provided in addition to or as a nondisplayable part of the predefined audiovisual presentation, wherein a user provided image or other image data is associated with and integrated into the predefined audiovisual presentation in association with the tag data. Thus, the predefined audiovisual presentation is provided with the (default e.g. computer generated) images associated with the tag data and displayed as a part of the predefined audiovisual presentation when there is no user defined image additionally provided, and when a user defined image is provided, that user defined image is integrated into the audiovisual presentation in association with (either substituting for or having its position and motions

associated with) the tag data representative of that computer generated image.

In alternate embodiments, where there is no existing tag data or motion capture data generated as a part of the production of the predefined audiovisual presentation, such data can be added after this fact; or a new audiovisual presentation can be provided from scratch which includes tag data which can be generated by numerous means, such as by providing camera position information (relative to a fixed environment), or otherwise identifying position and location of one or various predefined characters which can be selected for associative integration with one or more user defined images, or alternatively or additionally motion capture technology can be utilized to create a tag track (even where there is no image integration provided in generating the predefined audiovisual presentation, where the tag track data is utilized for the sole purpose of user image integration).

For pre-existing predefined audiovisual presentations, other techniques, such as roto-ing, or otherwise defining the borders of and positions of selected predefined characters within the predefined audiovisual presentation can be utilized to provide the necessary tag information for a tag track or other type tag signal, which can then be utilized for the associative integration of the user-defined image into the predefined audiovisual presentation.

In an alternate embodiment, user image data is integrated into the predefined audiovisual presentation in an associative manner so as to superimpose, substitute or overlay the user image data in the place of or in combination with a portion of a preselected character of the predefined audiovisual presentation. Thus, for example in a video game such as football, basketball, hockey, baseball, etc., the user's image data (for example, representative of a video facial image of the

user's choice, including of the user or other person) and/or the name of the user (or of the user's choice) (printed, written or typed in a font in size as appropriate for associative mapping to the portion of the preselected character) are displayed on the jersey or shirt of the preselected character in the preselected portion of the preselected character. This permits the personalization of the game, so that where it is not practical or feasible (due to the nature of the audiovisual presentation or due to the cost/performance constraints on processing power for interception and identification of and texture mapping and wrapping), and permits the user to personalize and participate in the audiovisual presentation such as a video game. Additionally, or alternatively, such as in a game of baseball, the user's video image can be displayed as the batter's face, or the pitcher's face, depending on offense or defense and depending on the physical size and orientation of such pitcher or catcher's face relative to the viewing by the user of the game.

In accordance with the preferred embodiment of the present invention, a tracking data tag is associated with one or a plurality of predefined sections of the predefined audiovisual work, to permit associative integration of the user image data into the predefined audiovisual presentation to create the modified audiovisual presentation, while at the same time reducing the computational and signal analyses requirements required for integrating the user image data into the predefined audiovisual presentation. As described herein, this can be done by numerous means, including during the creation of the predefined audiovisual presentation (such as by utilization of 3D virtual studio type information such as camera position, tilt, zoom, pan, etc.), motion detection positional data, and other means. Additionally, the tracking data can be provided by post-processing a predefined audiovisual work which otherwise contains no tracking data, such as via signal processing, image recognition, voice characteristic data recognition, motion etc., which thereby generates the tracking data, even though the predefined audiovisual presentation was not originally

created with the tracking data. In either of these situations, that is where a predefined audiovisual presentation is created with tracking data originally, or where tracking data is subsequently provided, the user image can then be associated with the tracking data of a selected individual character, image, voice, etc., of the predefined audiovisual presentation, and thereafter associatively integrated as keyed to the respective tracking data.

Numerous techniques exist for creating the tracking data including signal analyses, signature analyses, image recognition, post-production, roto-ing, etc. Any type of tracking data can be utilized, and any means of generating the tracking data either pre-production, during production, or post-production, are within the scope of the present invention and are contemplated for use therewith.

The present invention finds application in various embodiments, including within video games, movies, cartoons and other animations, interactive learning, with computers, CD ROMS, in conjunction with VCR's, laser disk players, DVD, or other player apparatus, or player/recorder apparatus, as well as with cable and satellite receivers, other types of set top boxes, radio receivers (for voice-based user image associative integration into a purely audio presentation) stereo audio equipment including CD players, stereo receivers, amplifiers, television presentation apparatus, etc.



**Exhibit C to**  
**DECLARATIONS OF DAVID H. SITIRCK**  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	SITRICK, David H.	)
		)
For:	IMAGE TRACKING AND	)
	SUBSTITUTION SYSTEM AND	)
	METHODOLOGY	)
		)
Serial Number:	09/723,169	)
		)
Filed:	November 27, 2000	)
		)
Examiner:	BECKER, Shawn M.	)
		)
Art Unit:	2173	)
		)
Attorney Docket:	STD 1684 RCE	)

**EXHIBIT C (4 pages)**  
**to the**  
**DECLARATIONS UNDER 37 CFR 1.131**

DHS disclosure ideas

1. A user image tracking and integration system for creating a display presentation, aid system comprising:

a source of user image signals representative of at least one.....

A first source of non-user image signals and associated tracking signals comprising at least one of audio, visual, and audiovisual presentation signals for linking the user image signals to the associated tracking data.

Create music videos that let you insert a user image into the video.

Create with video user image tracking data real "extra" actor whose movements are motion captured in 2-D or 3-D for each of a plurality of predefined actions (e.g., walk, stand, sit ,bend, lay down, pitch, hit, catch, kick, throw, jump, fall, dance moves, kicks, sports moves, fighting moves, talking ,laughing, crying, etc.



Optionally, create defined sound tracks of human voice saying, singing script with sound tracking data with script data or other script data, then the user voice image data integrated into the script data to modify the defined sound tracks to provide integrated sound tracks.

Video image tracking data is .....

<u>Type of Game</u>	<u>Characteristic data</u>
fighting	face, head, and body, front, sides, ( $\pm 15^\circ$ , $30^\circ$ , $45^\circ$ , $60^\circ$ , $75^\circ$ , $90^\circ$ ), back, top, body torso, and arms, and leap
shooting	
driving	head and face only
skiing	head and face only
baseball	face, voice, head, typed name
basketball	
football	
soccer	
hockey	
dancing	
music performance	head, face, voice, hands, fingers

Type of Movie

movie theater            typed name, head, face, voice  
home VCR/DVD        typed name, head, face, voice, set-top box  
broadcast & cable TV typed name, head, face, voice, set-top box  
Web-TV                typed name, head, face, voice, set-top box or server based

Personalize TV commercials

Personalize broadcast TV and Cable-TV shows

Take Code commercial with/without user image (and Paula Abdul)

Take Ronald McDonald commercial and add kids user image

Go to Digital Domain

Shoot footage with/without user image integration into "extras"

Need to add tracking data to pre-recorded video tape to permit a user image to be integrated into the presentation.

Computer at VCR rental store takes a user image card/diskette/CD, and mixes the user image into a video to create a custom video tape including the user image.

Alternatively, a home set-top box accepts video signals including tracking data and the user image data to provide customized video signals which are displayed as an integrated audiovisual presentation.



**Exhibit D to**  
**DECLARATIONS OF DAVID H. SITIRCK**  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	SITRICK, David H.	)
		)
For:	IMAGE TRACKING AND	)
	SUBSTITUTION SYSTEM AND	)
	METHODOLOGY	)
		)
Serial Number:	09/723,169	)
		)
Filed:	November 27, 2000	)
		)
Examiner:	BECKER, Shawn M.	)
		)
Art Unit:	2173	)
		)
Attorney Docket:	STD 1684 RCE	)

**EXHIBIT D (15 pages)**  
**to the**  
**DECLARATIONS UNDER 37 CFR 1.131**

Draft Claims

1. A system for providing a visual display presentation comprising:  
data processing apparatus comprised of a processor and memory;  
a user input apparatus;  
image apparatus for providing digitized image data of a person;  
application software comprising a plurality of predefined graphics and control logic responsive to the user input apparatus;  
  
wherein the data processing apparatus is responsive to the control logic for providing mapping and linking of the image data with at least one of the plurality of predefined graphics to provide a visual display presentation comprised of the image data visually modified by the at least one of the predefined graphics.
2. The system as in claim 1, wherein the image data is comprised of the person's head, wherein the predefined graphics is comprised of at least one of hair style, mustache, clothing, beard, hair color, hair accessories, hair removal, clothing accessories, and facial cosmetic makeup, and  
  
wherein the visual display presentation is comprised of the image data integrated with the at least one of the predefined graphics.
3. The system as in claim 1, wherein the data processing apparatus is comprised of at least one of a personal computer, a video game computer, and a set-top box computer.
4. The system as in claim 1, wherein the image apparatus is comprised of at least one of a camera and a storage device.

5. The system as in claim 4, wherein the storage device is at least one of semiconductor memory, magnetic storage apparatus, optical storage apparatus, and photographic storage.

6. The system as in claim 1, wherein the control logic provides for user selection of at least one of the predefined graphics, responsive to the input apparatus;

wherein the control logic further provides for selection of a portion of the image data for integration with the at least one of the predefined graphics, responsive to the input apparatus.

7. The system as in claim 1, wherein the user input apparatus is comprised of at least one of a mouse, a joystick, a light pen, voice recognition, a touch screen, a touch pad, and a keyboard switch.

8. The system as in claim 1, wherein the image data is stored in a standardized format.

9. A method of providing a visual display presentation comprising:  
providing digitized image data representative of a display presentation of a person's head;

providing predefined ancillary data representative of a display presentation of ancillary attributes;

selecting one of a plurality of image integration options for mapping and linking the image data and the ancillary data;

integrating the image data and the ancillary data to modify the display presentation of the person's head with the ancillary attributes, to provide modified image data; and

providing the visual display presentation responsive to the modified image data.

10. The method as in claim 9, wherein the ancillary data is comprised of at least one of hairstyle, facial hair, removal of hair, clothing, hair accessories, clothing accessories, hair color, and facial cosmetic makeup.

11. A display presentation system for providing a presentation comprising:  
a source of image data representative of a visual presentation for a person;  
a source of presentation data representative of a plurality of ancillary attributes for modifying the visual presentation of the person, wherein each of the ancillary attributes is associated with at least one of a plurality of options for modifying the image data visual presentation;  
a user input apparatus providing an output signal for the user to select one of the plurality of predefined options;  
application software comprising control logic for providing for generation of the presentation as a video display comprising the combination of the image data and at least one of the ancillary attributes selected responsive to the user input apparatus; and  
a processor, responsive to the application software, the input apparatus, the presentation data, and the image data, for generating the presentation of the video display.

12. The system as in claim 11, further comprised of user interface logic for generating a display presentation of a user option selection from the plurality of options responsive to the user input apparatus, to provide the user feedback for the selection of the user option.

13. The system as in claim 11, further comprised of logic for linking the image data to the system from an external image source.

14. The system as in claim 13, wherein the image source is at least one of a camera, a magnetic storage device, an optical storage device, and a communications link to a remote device.

15. A method for creating a customized audiovisual presentation comprising:
  - capturing image data representative of a visual portrayal of a person;
  - providing a plurality of background images;
  - providing positional data for each of the background images; and
  - processing the captured image data and integrating the processed image data with a respective one of the background images responsive to the positional data for the respective one of the background images.



16. A display presentation system comprising:
- a source of image data representative of a visual presentation of a person; and
  - apparatus for creating digital actors **<<dependent claim: wherein the digital actors are digital extra actors that at least in part populate an audiovisual presentation for at least a portion of a display presentation>>;**
  - apparatus for integrating the digital actor into
  - <<wherein the digital actor is comprised of a digital head superimposed on the body of a live actor to create an integrated digital virtual actor>>**

Additional Misc. Claims Per DHS 7/8/98

(For Divisional)

S. A system for user creation and storage of user image signals, comprising:  
a booth enclosure;  
apparatus for generating user image signals for at least one of a plurality of poses of a user image; and  
apparatus for formatting the user image signals and storing the formatted user image signals.

S+1. The system as in claim S, wherein the plurality of poses are at least one of front, side, top facial views, smile, frown, happy, sad, mad, glad, upset, angry, shy, frustrated facial expressions, sitting, standing, kneeling, jumping, lying down.

S+2. The system as in claim S, wherein user image signals for a plurality of the poses are stored in a defined indexed structure to provide mapping for selection of poses according to the defined indexed structure.

S+3. The system as in claim S, wherein the defined indexed structure provides for mapping of the poses according to respective associated pose functions.

S+4. The system as in claim S, wherein the mapping of the poses is according to an associated emotional function.

S+5. The system as in claim S, further comprising:  
apparatus for providing a visual display.

S+6. The system as in claim S, wherein ere are a plurality of poses generated, formatted, and stored.

S+7. The system as in claim S, further comprising:  
apparatus for providing an output presentation comprising a visual display of a predefined visual portion and a user image portion integrated therewith;  
wherein the user image portion is generated responsive to the user image signals.

T. An adapter interface system, for coupling to an existing video game apparatus, the system comprising:

user image creation apparatus for generating user image signals representative of a use image;

user image storage apparatus providing for storage of the user image signals; and

video game interface apparatus, for formatting and coupling of the user image signals between the adapter interface system and the video game apparatus.

T+1. The system as in claim T, wherein the video game apparatus provides a first predefined presentation when played without the user image signals;

wherein the video game apparatus provides a second presentation comprised of the user image signals integrated with the first predefined presentation responsive to the user image signals.

T+2. The system as in claim T+1, wherein the user image signals and the first predefined presentation are integrated in accordance with predefined mapping.

T+3. The system as in claim T,

W. A user image linking system comprising:  
a source of presentation signals defining a video presentation;  
a source of external image signals defining an external video image;  
a source of integration signals defining linkage mapping and integration of the  
external image signals with the presentation signals; and  
apparatus for integrating the external image signals with the presentation signals  
responsive to the integration signals, for providing an integrated display output.

W+1. The system as in claim W, wherein the presentation signals are representative of a  
visual display having predefined characters, the system further comprising a video game apparatus  
having game functions and for providing an output of the presentation signals;

wherein at least one of a plurality of the external image signals are mapped in  
accordance with associated ones of the game functions to provide the integrated display output.

W+2. The system as in claim W+1, wherein the game functions are at least one of facial  
view, car, spacecraft, vehicle, hero, villain, lover, warrior, monster, clothing and weapons.

Y. A methodology for creating at least one of video games, movies, broadcast video and recorded video, and for integrating therein external image data, the method comprising:

providing presentation signals comprising data signals and external image mapping signals; and

creating a visual presentation comprising the integration of the external image data with the display signals responsive to the external mapping signals.

Y+1. The method of claim Y, wherein the presentation is comprised of a plurality of frames of display sequences at a predefined timing;

wherein the external image mapping signals define a structure of spatial and temporal mapping for integration of the external image data into the display signals to provide integrated presentation signals.

Z. A game system comprising:  
a source of external image signals;  
a video game computer, providing a display presentation output in accordance with predefined game logic, further comprising external image mapping signals associated with the display presentation.

Z+1. The system as in claim Z, wherein the integration data provides at least one of spatial positioning and temporal mapping reference.

Z+2. The system as in claim Z, wherein the display presentation is comprised of at least one character having at least one associated motion display sequence;

wherein the external image signal is representative of a character video image as is associated with the character.

XXX. The system as in claim XX, wherein the source of user image signals is a video signal from an external source.

YYY. The system as in YY, wherein the user image (external image) signal is at least one of an analog signal, a digital signal, a broadcast video signal, signal parameter data, video image data, audio data, control signals, mapping signals.

ZZZ. The system as in claim ZZ, wherein the integration (mapping) signal is representative of positional and temporal placement information for providing for user image integration.

ZZZ+1. The system as in claim ZZZ, wherein the integration signal is generated responsive to motion capture tracking.



M. A display integration system comprising:

- apparatus providing display signals for a display presentation comprising predefined characters having respective positional and temporal characteristics associated with the display presentation thereof;
- a source of user image signals having an associated user image display presentation;
- apparatus for integrating the user signals with the display signals for one of the predefined characters to provide a modified display presentation comprising the user image display presentation having the associated respective positional and temporal characteristics of the respective one of the predefined characters.

M+1. The system as in claim M, wherein the user image signals are further comprised of a texture map.

M+2. The system as in claim M+1, wherein the positional and temporal characteristics are provided as separate signals from the display signals.

M+3. The system as in claim M, wherein the positional and temporal characteristics are derived from the display signals.

M+4. The system as in claim M, wherein the positional and temporal characteristics are added as signals separately to the display signals.

1. A method of generating a visual presentation comprising:  
representing a video presentation as video presentation signals comprised of user image tracking signals and associated video presentation signals;  
providing a user image interface responsive to user image signals and the user image tracking signals to integrate the user image signals with the associated video presentation signal to provide an integrated video signal.
2. The method as in claim 1, further characterized in that said user image tracking data is comprised of time and spatial data;  
the method further comprising:  
utilizing the time and spatial data to control placement of the user image data into the associated video presentation.
3. The method as in claim 1, wherein the tracking data is comprised of motion-capture data representative of at least one of a plurality of defined actor positions.
4. The method as in claim 1, providing a display presentation responsive to the integrated video signal.
5. The method as in claim 3, wherein the defined actor positions are at least one of still motion and action.

?? The system as in claim ?, wherein the user image signal is comprised of image presentation content and image sizing content;

wherein the user image signal is modified to fit into the display presentation responsive to the respective image presentation content and the image sizing content associated with the user image signal.

?+1. The system as in claim ?, wherein the \_\_\_\_\_ is further comprised of colors, clothing, other attire, tools, and weapons.

?+2. The system as in claim ?+1, wherein the \_\_\_\_\_ is further comprised of attire library and weapons library.

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**Exhibit E to**  
**DECLARATIONS OF DAVID H. SITIRCK**  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	SITRICK, David H.	)
		)
For:	IMAGE TRACKING AND	)
	SUBSTITUTION SYSTEM AND	)
	METHODOLOGY	)
		)
Serial Number:	09/723,169	)
		)
Filed:	November 27, 2000	)
		)
Examiner:	BECKER, Shawn M.	)
		)
Art Unit:	2173	)
		)
Attorney Docket:	STD 1684 RCE	)

**EXHIBIT E (6 pages)**  
**to the**  
**DECLARATIONS UNDER 37 CFR 1.131**

DHS disclosure ideas

1. A user image tracking and integration system for creating a display presentation, said system comprising:
  - a source of user image signals representative of at least one of an audio, visual, and audiovisual presentation of a user image;
  - a first source of non-user image signals comprising at least one of an audio, visual, and audiovisual presentation signals;
  - a source of associated tracking signals for linking the user image signals to the non-user image signals responsive to the associated tracking signals; and
  - apparatus for providing integrated presentation signals responsive to integrating the user image signals with the non-user image signals responsive to the associated tracking signals.
2. The system as in claim 1, wherein the tracking signals represent human actor movements which are motion captured.
3. The system as in claim 2, wherein the tracking signals are for each of a plurality of predefined actions.

4. The system as in claim 3, wherein the predefined actions are at least one of walk, stand, sit, bend, lay down, pitch, hit, catch, kick, throw, jump, fall, dance moves, kicks, sports moves, fighting moves, talking, laughing, crying, combinations thereof, and variations thereof.

5. The system as in claim 2, wherein the motion capture is one of 2-dimensional and 3-dimensional.

6. The system as in claim 1, wherein the display presentation is a music video, wherein the user image signal appear in the music video display presentation.

7. The system as in claim 1, wherein the tracking signals represent target coordinates; wherein the user image signals are positioned and resized responsive to the target coordinates.

8. The system as in claim 1, wherein the non-user image signal is comprised at least in part of data representative of defined sounds of a human voice producing audio <<speech, singing>> with sound tracking data and script data;

wherein the user image data is comprised at least in part of user voice image data integrated into the audio to modify the defined sound tracks to provide integrated sound tracks, wherein the user voice replaces the human voice.

9. An image integration system responsive to a first image signal representative of at least one reference image;

a second image signal representative of a substitute image;

an audiovisual presentation signal comprising a plurality of image signals representative of a display presentation;

wherein at least one of the representative display presentation signals is comprised of a portion representative of at least one of the reference signals;

said image integration system comprising:

detection apparatus for processing the audiovisual signal responsive to the audiovisual signal responsive to the audiovisual presentation signal to detect the presence

**<<position>> <<spatial, temporal>> of the at least one of the reference signals within the plurality of image signals <<of all said ones of the plurality of image signals>> <<anywhere within the plurality of image signals>>; and**

apparatus for integrating the substitute image into the display presentation in place of the detected portion responsive to the detection apparatus and the second image signal.



Video image tracking data is .....

<u>Type of Game</u>	<u>Characteristic data</u>
fighting	face, head, and body, front, sides, ( $\pm 15^\circ$ , $30^\circ$ , $45^\circ$ , $60^\circ$ , $75^\circ$ , $90^\circ$ ), back, top, body torso, and arms, and leap
shooting	
driving	head and face only
skiing	head and face only
baseball	face, voice, head, typed name
basketball	
football	
soccer	
hockey	
dancing	
music performance	head, face, voice, hands, fingers

Type of Movie

movie theater	typed name, head, face, voice
home VCR/DVD	typed name, head, face, voice, set-top box
broadcast & cable TV	typed name, head, face, voice, set-top box
Web-TV	typed name, head, face, voice, set-top box or server based

Personalize TV commercials

Personalize broadcast TV and Cable-TV shows

Take Code commercial with/without user image (and Paula Abdul)

Take Ronald McDonald commercial and add kids user image

Go to Digital Domain

Shoot footage with/without user image integration into "extras"

Need to add tracking data to pre-recorded video tape to permit a user image to be integrated into the presentation.

Computer at VCR rental store takes a user image card/diskette/CD, and mixes the user image into a video to create a custom video tape including the user image.

Alternatively, a home set-top box accepts video signals including tracking data and the user image data to provide customized video signals which are displayed as an integrated audiovisual presentation.



**Exhibit F to**  
**DECLARATIONS OF DAVID H. SITIRCK**  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	SITRICK, David H.	)
		)
For:	IMAGE TRACKING AND	)
	SUBSTITUTION SYSTEM AND	)
	METHODOLOGY	)
		)
Serial Number:	09/723,169	)
		)
Filed:	November 27, 2000	)
		)
Examiner:	BECKER, Shawn M.	)
		)
Art Unit:	2173	)
		)
Attorney Docket:	STD 1684 RCE	)

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**EXHIBIT F (6 pages)**  
**to the**  
**DECLARATIONS UNDER 37 CFR 1.131**

## CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service with sufficient postage as Express Mail in an envelope addressed to: Assistant Commissioner for Patents, Box Patent Application, Washington, D.C. 20231, on this date.

\_\_\_\_\_  
(Signature of person making deposit)

December 23, 1998

(Date)

\_\_\_\_\_  
Express Mail Label Number  
TITLE

Background of the Invention  
This invention relates to

Field of the Invention

Summary of the Invention

These and other aspects and attributes of the present invention will be discussed with reference to the following drawings and accompanying specification.

Brief Description Of The Drawings:  
FIG. 1 shows

Detailed Description Of The Preferred Embodiment:

While this invention is susceptible of embodiment in many different forms, there is shown in the drawing, and will be described herein in detail, specific embodiments thereof with the understanding that the present disclosure is to be considered as an exemplification of the principles of the invention and is not intended to limit the invention to the specific embodiments illustrated.

FIG. 1 is a system block diagram of the present invention, showing a user image video processing and integration subsystem 100. Coupled to the subsystem 100 is an external source of program content 110 and an external source of user image content 130. The external source of program content 100 is further comprised of other program data 115 and program video 120. In the figure, representations of two people, a first person 123 and a second person 127, are visible in the program video 120. In the external source of user image content 130 is further comprised of other user data 132 and user image data

135, the user image data 135 is further comprised of a user specified image 137. In the figure, 137 appears as a single image of a face. The user image video processing and integration subsystem 100 processes the inputs 110 and 130 producing the output content 170. The output content 170 is comprised of other output data 180 and output video 190. The other output data 180 is further comprised of data from the other program data 115 output as 182, data from the other user data 132 output as 184, and processed data produced by the subsystem 100 output as data 187. The output video 190 consists of a processed version of the program video 120 processed by the subsystem 100 such that the face of person 123 has been replaced by the user specified image 137 producing the output 194. The input image 127 is unmodified by the system and output as person image 196 in the output video 190.

Of note is that not all data present in other program data 115 or other user data 132 is necessarily present in output other data 180. Further, that data generated by the subsystem 100 or processed by the subsystem 100 may be additionally output within the other output data 180.

FIG. 2 represents a system block diagram of an alternate embodiment of this invention. With respect to FIG. 2, there is a user image video processing and integration subsystem 200. Coupled to said subsystem is an external source of program content 210 and a plurality of external sources of user image content 230, 240, and 250. The external source of program content 210 is further comprised of other program data 215 and program video 220. In the figure, the program video 220 contains images of three persons 222, 225, and 227. The first external source of user image content 230 is comprised of other user data 232 and user image data 235. The user image data is further comprised of user specified image 237, indicated as a representation of a face. In an analogous manner, external source of user image content 240 is comprised of other user data

242 and user image data 245 again comprised of user specified image 247, again representing a different face, and continuing the pattern, external source of user image content 250 is further comprised of other user data 252 and user image data 255. The user image data 255 is further comprised of a user specified image 257, representing a still different face.

The subsystem 200 processes the inputs 210, 230, 240, and 250, producing the output content 270. The output content 270 is comprised of other output data 280 and output video 290. The other output data 280 is further comprised of data elements 281, representing data originally supplied to the system by the external source program content 210 as other user data 215. Additionally, output 283 represents other user data 232 supplied to the system via external source of user image content 230. Output 285 represents other user data 242 supplied to the system via external source of user image content 240, and in an analogous manner, output 287 represents other user data 252 supplied to the system via external source of user image content 250. Also output as part of other data 280 is data elements 289; 289 being data generated by or processed by the system 200. The figure shows representations of persons 222, 225, and 227 being processed by the subsystem 200, producing representations 292, 295, and 297. In the illustrated example, representation 222 has been replaced by the user specified image 247. Representation 227 has been replaced by the user specified image 237. In the illustrated example, representation 225 is not modified by the system and is output as

representation 295. In the illustrated example, the user specified image 257 is not used. This figure shows that not all of the external sources of user image content are necessarily used simultaneously or continuously. At specific times in the operation of the subsystem 200, selected ones of the external source of user image contents 230, 240, and 250 may be used to produce the outputs 270.

FIG. 3 is a system block diagram of another alternate embodiment of the present invention. FIG. 3 shows a first user image video processing and integration subsystem 300 and a second user image video processing and integration subsystem 370. The first subsystem 300 accepts an external source of program content 310 and a plurality of external sources of user image content 320, 324, and 328. The external source of program content 310 is further comprised of other program data 311 and program video 312. The program video has representations of person 315, 316, and 317. The external source of user image content 320 is further comprised of other user data 321 and user image data 322. User image data 322 is shown to be comprised of a user specified image 323. In an analogous manner, external source of user image content 324 and 328 are comprised respectively of other user data 325 and 329 and user image data 326 and 330, each further comprised of a user specified image 327 and 331, respectively. Inputs 310, 320, 324, and 328 are supplied to the subsystem 300 producing output content 330. Output content 330 is comprised of other output data 335 and output video 340. The output video 340 is further comprised of representations of persons 345, 346, and 347. The output content 330 is coupled to the second user image video processing and integration subsystem 370 as an external source of program content. Additionally coupled to the second video processing and integration subsystem are a plurality of new external sources of user image content 350, 360 comprised respectively of, and in a manner analogous to previous examples, other user data 352, 362 and user image data 354, 364, comprised of user specified images 357, 367. The output content 330 and the new inputs 350 and 360 are all coupled to the subsystem 370 producing output content 380. The output content 380 is further comprised of other output data 385 and output video 390. The output video 390 is further comprised of representations of persons 395, 396, and 397. As shown in the figure, the processing performed by the first user image video processing and integration subsystem 300 selectively replaces images or representations 315 and 317 with the user supplied images 327 and 323, producing respectively representations 345 and 347. Representation 316 is not modified by the subsystem 300 and is output as representation 346.

The second user image video processing and integration subsystem then accepts representations 345, 346, and 347 and performs further processing. The further processing the example illustrated replaces the representation 345 with the user specified image 357, producing an output representation 395. The representation 346 is output unmodified as representation 396, and the representation 347 is output unmodified as representation 397. Elaborating further on the representations of output content of other output data 335 and 385, it should be noted that data element 336, part of other data output 335, can be and in this example is discarded by the second user image video processing and integration subsystem 370. Additionally, the subsystem 370 produces or synthesizes or processes additional output data 387, as well as coupling selected portions of the other user data 352 and 362, respectively, as the outputs 386. FIG. 3 shows that the output of a first processing subsystem 330 may be used as an input to a second

processing subsystem 370 and that wherein any processing performed by first subsystem 300 is subsequently additionally processed in a serial fashion by second subsystem 370.

FIG. 4 is a system block diagram of another alternate embodiment of the present invention. In FIG. 4, user image video processing and integration subsystem 400 has coupled to it an external source of program content 405 and a external source of user image content 407, and an optional plurality of additional external sources of user image content 408. The subsystem 400 produces output content 410 comprised of the other output data 415 and the output video 420, in this case having representations of people 425, 426, and 427. The output content 410 is coupled to second level user image video processing and integration subsystems 430 and 450. Each of the subsystems 430 and 450 have coupled to them respective external sources of user image content 440 and 460, and optional additional plurality of external sources of user image content 449 and 469, respectively. The subsystems 430 and 450 produce outputs 470 and 480, respectively. As shown in the figure, the output content 470 comprises other output data 472 and output video 473. The output video 473 having the representations 474, 475, and 476. In an analogous manner, output content 480 is comprised of other output data 482 and output video 483 comprised of representations 484, 485, and 486. It should be noted that representation 427 is passed through without processing both subsystems 430 and 450, producing respectively representations 476 and 486. However, representation 486 is only passed through unmodified subsystem 430 producing representation 475. In the case of the representation 426 being processed by the subsystem 450, the user specified image 467 is used to provide the representation 485 in the output content. Further of note is that representation 425 is processed by the subsystem 430 using the user specified image 447 producing the representation 474.

External source of user image content 440 is further comprised of other user data 442 and user image data 444 is further comprised of user specified image 447. In an analogous manner, external source of user image content 460 is further comprised of other user data 462 and user image data 464 further comprised of user specified image 467.

In general, of note in FIG. 4 is that each level of user image video processing and integration subsystem that operates on program content produces a derivative version of that program content, which can then be further processed by additional and subsequent user image video processing and integration subsystems. As illustrated in FIG. 4, this technique can be extrapolated indefinitely by including later serial processing stages 490, consisting of additional user image video processing and integration subsystems 493, each including additional external sources of user image content 495 and producing output contents 497. Thus, the number of simultaneously created derivative works of the original program content 405 is limited only by the number and arrangement of processing subsystems and the number and assignment of the external sources of user image content.

FIG. 5 is a system block diagram of a user image video processing and image integration subsystem. The processing subsystem 500 is comprised of a transform mesh subsystem 510, a wrap texture subsystem 520, and a composite and mask subsystem 530. The transform mesh subsystem is coupled to the wrap texture subsystem via the bus 515, the wrap texture subsystem is coupled to the composite and map subsystem via the bus 525. The output of the user image video processing and integration subsystem

540 is comprised of the output of the composite and mask subsystem 580 and the output of the transform mesh subsystem 590. The inputs to the subsystem 500 are comprised of other program data 550 and program video 560. The other program data 550 is further comprised of various kinds of information, including position information 552, rotation and orientation information 554, mesh geometry information 556, and mask information 558. Other program data 550 is coupled to the transform mesh subsystem 510. Additionally, mask information 558 is coupled to the composite and mask subsystem 530. The program video 560 is also coupled to the composite and mask subsystem 530. An external source of user image content 570 is coupled to the wrap texture subsystem 520. In FIG. 5, the external source of user image content is shown representative of user image data comprising a texture or a texture map. The operation of the system shown in FIG. 5 is to use the position, rotation, and orientation and mesh geometry information present in the external program content to transform the mesh geometry information in the subsystem 510, producing a transformed mesh output on buses 515 and 590. The transformed mesh is supplied to the wrapped texture subsystem 520, where the texture map 570 is applied to the transform mesh, producing a rendered image output on bus 525. The rendered image supplied to the composite and mask subsystem is then composited or combined with the program content 560 and masked by the mask data 558, producing a video output 580. The use of the transform mesh subsystem coupled with the wrapping texture subsystem allows the texture map to be used to render the user image from virtually any orientation or position. The compositing and masking operation replaces a selected portion of the program video 560 with the rendered image 525.

General notes regarding the limitation of the subsystems. The transform mesh subsystem is a straightforward process documented in numerous texts on computer graphics. The mesh geometry primarily consists of coordinates of points which may be used to describe polygons, or triangles, or a wire frame representation, or patches, or B-splines or NURBS, all of which can be used to describe the 3-dimensional geometry of a portion of a user's body or head. Once this geometric description is known, the transformation process is very straightforward - you take the coordinates of the points that define those various entities and produce transformed versions that are correctly rotated, positioned, and have perspective or aspect ratio or field of view operations applied to them. The equations and sample programs for implementing these functions on a general purpose computer are published in such places as Foley, Van Dam computer graphics and applications, also standard computer graphics texts by Hearn or Watt. Similarly, once the mesh geometry has been transformed appropriately, the process of taking a texture map and wrapping that texture map around the transform mesh is a straightforward process that is documented in the same literature. The wrap texture subsystem can also easily be implemented on a general purpose computer programmed to do the task. In addition to just about any standard commodity personal computer available from the usual vendors, Apple, IBM, etc., there are also special purpose hardware and hardware/software combinations that are sold by vendors to accommodate doing the operations of the transform mesh subsystem and the wrap texture subsystem in a hardware assisted manner to produce a very cost effective and rapid result. These devices fall generally out of the category of 3-D accelerators, commonly sold for personal computers by vendors such as Apple, Matrix, Diamond, S3, and a multitude of others.



The operations of the composite and mask subsystem are easily performed by a general purpose computer, insofar as the equations are necessary to implement the operation are trivial to perform, however, the amount of data that has to be processed generally implies that this step needs to be performed by a hardware-assisted or special purpose circuit. Such circuits are readily available from a variety of vendors, including for example, the Ultimatte compositing and masking subsystem which is available from Ultimatte Corporation. Additionally, the generation of the texture map is something that is available from a number of different vendors that specialize in scanning of three dimensional objects. These texture maps are generally produced once and then used over and over. The scanning process can be anywhere from fractions of a second to tens of seconds with commercial systems. The creation of the texture map is not a necessary part of this invention. The texture map is simply supplied to the invention.>>

FIG. 6 shows a system block diagram of an alternate embodiment of the user image video processing and integration subsystem. In FIG. 6, the subsystem 600 is comprised of a transform model subsystem 610, an image selection subsystem 620, a morphing subsystem 630, and a composite and masking subsystem 640.

From the foregoing, it will be observed that numerous variations and modifications may be effected without departing from the spirit and scope of the invention. It is to be understood that no limitation with respect to the specific apparatus illustrated herein is intended or should be inferred. It is, of course, intended to cover by the appended claims all such modifications as fall within the scope of the claims.

What is claimed is:  
Abstract of the Disclosure

CONFIDENTIAL  
Atty Dkt. No. STD 1684

1684 Draft Appl.v1 (12/23/98) jlg-



**Exhibit G to**  
**DECLARATIONS OF DAVID H. SITIRCK**  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	SITRICK, David H.	)
		)
For:	IMAGE TRACKING AND	)
	SUBSTITUTION SYSTEM AND	)
	METHODOLOGY	)
		)
Serial Number:	09/723,169	)
		)
Filed:	November 27, 2000	)
		)
Examiner:	BECKER, Shawn M.	)
		)
Art Unit:	2173	)
		)
Attorney Docket:	STD 1684 RCE	)

**EXHIBIT G (4 pages)**  
**to the**  
**DECLARATIONS UNDER 37 CFR 1.131**

What is claimed is:

What is claimed is:

- 1) A method of integrating user data into an audiovisual source for distribution, the method comprising:  
providing user data;  
providing an audiovisual source, wherein the source comprises audiovisual program content and other program data;  
then selecting a portion of the audiovisual program content responsive to the other program data as a selected portion for user data associative integration;  
then integrating the user data with the selected portion responsive to the other program data; and  
providing a modified output content wherein the user data is associated with and integrated into the selected portion of the output content, and wherein the output content is constrained to be in a format suitable for input to a next instance of the invention as an audiovisual source.
- 2) The method as in claim 1, wherein the user data additionally comprises user image content.
- 3) The method as in claim 1, wherein the user data additionally comprises a plurality of user images, from which ones of the user images, responsive to the other program data, are selectively integrated into the modified output content.
- 4) The method as in claim 2, wherein integrating the user data is further comprised of the step of transforming the user image content.
- 5) The method as in claim 4, wherein said transformation is at least one of scaling, rotating, skewing, resampling, or filtering.
- 6) The method as in claim 2, wherein integrating the user data is further comprised of the step of graphical modification of the user image content.

- 7) The method as in claim 6, wherein said graphical modification is at least one of morphing, applying motion vectors, adding appearance of film grain, tinting, adjusting brightness, adjusting contrast, adjusting hue, or color-correction.
- 8) The method as in claim 2, wherein the user image content is at least one of a video image, a still picture, a texture map, a Mercatur projection of a user image, a geometric model, a geometric mesh, a motion video clip, a keyframe, morphing coordinate points, geometric constraint information, or colorimetry information.
- 9) The method as in claim 1, wherein the program content is at least one of an audiovisual presentation, a pre-recorded program, a live broadcast, positioning information, rotation information, lighting information, film stock indentification, compositing information, masking information, a motion vector, morphing coordinate points, selection information, size information, aspect information, field of view information, depth of field information, or color correction information.
- 10) The method as in claim 1, wherein the program content is further comprised of additional program content, and wherein selecting a portion of the audiovisual program content additionally selects ones of the program content and the additional program content responsive to user data.
- 11) A system for integrating user data into an audiovisual source for distribution, the system comprising:  
a source of user data;  
a source of program content, wherein the program content comprises audiovisual program content and other program data;  
selection means, coupled to the source of program content, providing a selected portion of the audiovisual program content responsive to the other program data;  
integration means, coupled to the selection means, the source of program content, and the source of

user data, providing an integrated modified output content wherein the user data is integrated into the selected portion of the output content, and wherein the output content is constrained to be in a format suitable for input to a next instance of the system as program content.

12) The system as in claim 11, wherein the user data additionally comprises user image content.

13) The system as in claim 11, wherein the user data additionally comprises a plurality of user images, and wherein the integration means additionally comprises means to selectively integrate ones of the plurality of the user images responsive to the other program data into the modified output content.

14) The system as in claim 12, wherein the integration means additionally comprises transformation means to transform the user image content.

15) The system as in claim 14, wherein said transformation is at least one of scaling, rotating, skewing, resampling, or filtering.

16) The system as in claim 12, wherein the integration means additionally comprises graphical modification means to graphically modify the user image content.

17) The system as in claim 16, wherein said graphical modification is at least one of morphing, applying motion vectors, adding appearance of film grain, tinting, adjusting brightness, adjusting contrast, adjusting hue, or color-correction.

18) The system as in claim 12, wherein the user image content is at least one of a video image, a still picture, a texture map, a Mercatur projection of a user image, a geometric model, a geometric mesh, a motion video clip, a keyframe, morphing coordinate points, geometric constraint information, or colorimetry information.

19) The system as in claim 11, wherein the program content is at least one of an audiovisual presentation, a pre-recorded program, a live broadcast, positioning information, rotation information, lighting information, film stock identification, compositing information, masking information, a motion vector, morphing coordinate points, selection information, size information, aspect information, field of view information, depth of field information, or color correction information.

20) The system as in claim 11, wherein the program content is further comprised of additional program content, and wherein the selection means additionally comprises means to select ones of the program content and the additional program content responsive to the other program data.



**Exhibit H to**  
**DECLARATIONS OF DAVID H. SITIRCK**  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	SITRICK, David H.	)
		)
For:	IMAGE TRACKING AND	)
	SUBSTITUTION SYSTEM AND	)
	METHODOLOGY	)
		)
Serial Number:	09/723,169	)
		)
Filed:	November 27, 2000	)
		)
Examiner:	BECKER, Shawn M.	)
		)
Art Unit:	2173	)
		)
Attorney Docket:	STD 1684 RCE	)

**EXHIBIT H (3 pages)**  
**to the**  
**DECLARATIONS UNDER 37 CFR 1.131**

1. A system for integrating a user image into a predefined audiovisual presentation comprising:
  - a plurality of user receptacles, each receptacle comprising a viewing image presentation surface and a user image input interface;
  - means for coupling a respective one of the user images to each of the respective user image input interfaces;
  - wherein responsive to the means for coupling the image presentation surface for each individual user integrates the respective user image into an audiovisual presentation such that the image view on the presentation surface includes the user image from the user image input interface for the respective user who is viewing the respective image surface.
2. The system as in claim 1, wherein the presentation on the presentation surface for each user includes user images for all users having a user image coupled to the respective user image input interface of their respective user.
3. The system as in claim 1, further comprising an amusement area providing a display presentation, wherein each of the users within the amusement area who couple their user image storage card to the storage card interface device for the amusement area has their image shown as part of the display presentation in that entertainment area. <<antecedent basis?>>
4. The system as in claim 3, wherein within the amusement area each user has a separate viewing display surface and each user sees a display presentation on a display presentation surface for their respective user representative of the predefined audiovisual presentation with the user image for the respective user integrated into the display presentation for the respective user to provide a modified display presentation.



5. The system as in claim 4, wherein the modified display presentation is further comprised of integration of all users images into a single modified display presentation.

6. The system as in claim 1, wherein the plurality of users are in a movie theater, and watch a movie, wherein each user views themselves as a character in the predefined audiovisual presentation.

7. The system as in claim 1, wherein the plurality of users can be clustered together to view a same modified display presentation including the various ones of the respective individual ones making up the groupings, and without the presence of other users in the amusement area in the modified audiovisual presentation.

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1. A method of generating a visual presentation comprising:  
providing video presentation signals representing a video presentation, said video presentation signals comprised of user image tracking signals and associated video presentation signals;  
providing user image signals;  
providing a user image interface responsive to user image signals and the user image tracking signals for integrating the user image signals with the video presentation signal responsive to the user image tracking signals to provide an integrated video signal.

2. The method as in claim 1, further characterized in that said user image tracking data is comprised of time and spatial data; the method further comprising:  
utilizing the time and spatial data to control placement of the user image data into the

associated video presentation.

3. The method as in claim 1, wherein the tracking data is comprised of motion-capture data representative of at least one of a plurality of defined actor positions.

4. The method as in claim 1, providing a display presentation responsive to the integrated video signal.

5. The method as in claim 3, wherein the defined actor positions are at least one of still motion and action.